

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-243196

(43)Date of publication of application : 30.10.1991

(51)Int.Cl.

H02P 6/02

G11B 19/22

H02P 3/12

(21)Application number : 02-039153

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(22)Date of filing : 20.02.1990

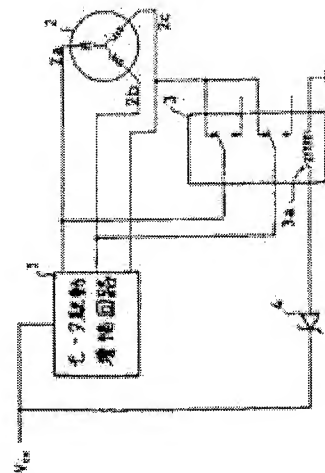
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(54) DC MOTOR DRIVING CIRCUIT

(57)Abstract:

PURPOSE: To effect high-speed ON/OFF control by connecting a Zener diode in series to the power supply line of a relay circuit.

CONSTITUTION: When a power supply is intercepted, a relay 3 is switched into a condition that the upper terminals are connected and a circuit, connecting respective windings 2a-2c of a DC motor 2 to each other, is formed whereby the counter electromotive force of the DC motor 2, rotated by an inertia, is short-circuited. In this case, a voltage from a power supply line is impressed on the winding 3a of the relay 3 through a Zener diode 4, however, the voltage, applied on the winding of the relay 3, is controlled by the Zener diode 4. Accordingly, the voltage is reduced to



the voltage of the returning operation of the relay 3 and, therefore, the returning operation is effected over a very short period of time. As a result, the relay 3 is returned to a condition that the lower terminals are connected again whereby the DC motor 2 can be driven quickly upon the next conduction of the current of the power supply.